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JUNE, 1912

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Announcement of the Winter-Courses in the College of Agriculture,
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ITHACA, N. Y.

New York State College of Agriculture at Cornell University

L. H. BAILEY, Director.

The College of Agriculture is one of several co-ordinate colleges comprising Cornell University. The work of the College is of three general kinds: The regular teaching work of undergraduate and graduate grade; the experiment work; the extension work. The resident instruction falls in the following groups:

1. Four-year course, leading to the degree Bachelor of Science in Agriculture (B.S. in Agr.). When desired, the last two years may be chosen in subjects pertaining to landscape architecture and out-door art, or to home economics. In the Graduate School of the University students may secure the Master's and Doctor's degrees (M.S. in Agr. and Ph.D.).

2. Special work, comprising one or two years: (a) Agriculture special; (b) Nature-study special or normal course.

3. Winter-Courses of 12 weeks: (a) General Agriculture; (b) Dairy Industry; (c) Poultry Husbandry; (d) Horticulture; (e) Home Economics.

THE INSTRUCTION IS DIVIDED AMONG TWENTY-TWO DEPARTMENTS AS FOLLOWS:

FARM PRACTICE and FARM CROPS
FARM MANAGEMENT
AGRICULTURAL CHEMISTRY
PLANT PHYSIOLOGY
PLANT PATHOLOGY
SOIL TECHNOLOGY
PLANT-BREEDING
ENTOMOLOGY, BIOLOGY and NATURE-STUDY
HORTICULTURE
POMOLOGY
ANIMAL HUSBANDRY
POULTRY HUSBANDRY
DAIRY INDUSTRY
FARM MECHANICS
FORESTRY
RURAL ART
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Courtesy of J. P. Troy

The Cornell Countryman

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THE NEW AUDITORIUM

By L. H. Bailey

RESERVOIR avenue is now completely shut off by the excavations for the new auditorium. The building backs up toward the easternmost house on Reservoir Avenue, being just in front of the Tailby cottage and coming within about forty feet of it. It faces to the south toward the Veterinary College and the playground, looking down the direction of Garden Avenue, and occupying the northern end of the school-gardens. It is an immense building, being more than one hundred and fifty feet in each direction over all, or a space each way equivalent to about two and one-half times across a four-rod public highway. This will be one of the largest auditoriums in western New York and will seat 2500 people and probably more. It will have more than twice the seating capacity of the Armory or of Sibley Dome.

The general shape of the building is something like a horse-shoe, the curved part being to the south and the plain part facing north toward the reservoir. The entrance from the south is up flights of stone steps and between six imposing stone columns. This entrance is flanked on either side by eight columns extending back along the curved part; and back of these columns is an ambulatory or loggia to which exits are provided from the auditorium in case of necessity. Part of the floor of the auditorium is sloping, with an orchestra pit at the front end and below the stage. The stage is very large, with capacity to accommodate two hundred persons. This stage will be set off from the Auditorium by heavy curtains so that it may be used for class-room and similar purposes. Looking from the stage to the auditorium floor, one sees the galleries, in the rear of which is a semicircle of 30 columns against the rear walls. Outside the auditorium proper and next the ambulatory is a corridor extending around the complete semicircle with openings by eleven glass doors into the seating room.

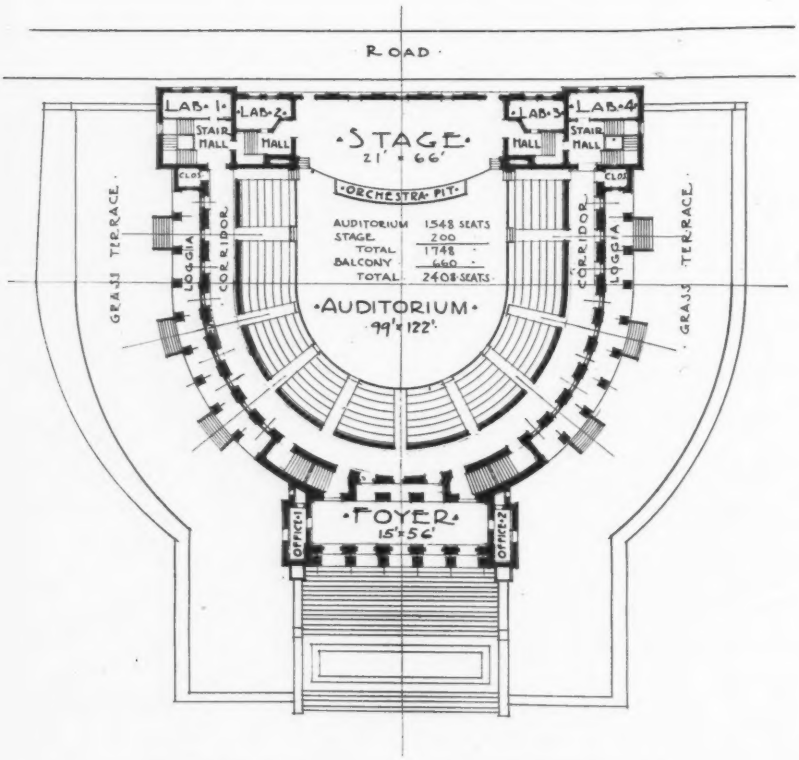
A complete ventilating system is provided, with the fresh air supply underneath the seats, thereby eliminating draughts.

The building is not an auditiorum alone. It is to be used also for class-room and laboratory purposes. The basement is well lighted, being mostly above ground. Under the stage is a laboratory-room 66 x 20 feet. Extending completely around underneath the ambulatory and corridor is a room measuring about thirty feet wide and about two hundred and fifty feet in length, all of which, except the part under the front entrance, is well lighted and is available for laboratory and similar purposes. The center of the basement underneath the pit, is occupied by a plenum in which is the ventilating and other apparatus. There are entrances to the auditorium at either corner on the rear, so arranged that guests may have access by means of these entrances both to the stage and to the main corridors above.

In each of the rear corners on the first floor are two laboratory or office

rooms as well as lavatories to serve the stage. There are men's and women's general lavatories also underneath the front entrance. On the second floor there are four similar laboratories or offices in the rear corners.

The building will probably be the most imposing structure on the Cornell Campus and it will serve as the connecting architectural link between the agricultural compound and the main Campus. The contract calls for the completion of the building November 1, 1912.



FIRST FLOOR PLAN AUDITORIUM AND LABORATORY BUILDING.
Green & Wicks, Architects, Buffalo, N. Y.

THE NEW YORK HIGH SCHOOL COURSE IN FARM MECHANICS AND DRAWING

By F. W. Howe

Specialist in Agricultural Education, Albany, N. Y.

WITH the beginning of the school year 1911–12, a course requiring one year's work in Farm Mechanics and Drawing went into effect in fifteen of the seventeen New York high schools that had adopted the four-year vocational course in Agriculture. For special local reasons the mechanical work in two schools (Gowanda and Albion) were postponed one year but will be given in the school year 1912–13. Upwards of a dozen additional schools are likely to adopt the four-year agricultural course before September 1912. The total number of New York high schools teaching Farm Mechanics and Drawing as a part of this course in 1912–13 will, therefore, approximate thirty.

The subject of Farm Mechanics is comparatively new even in the state agricultural colleges. The popular understanding of what is embraced in it is not yet nearly as definite as it is in the case of Manual Training. There is a strong tendency even among teachers and school principals, to confuse the new subject with the older one. For the sake of making the distinction more definite and giving some guidance to the preparation of those who are looking forward to securing a New York State certificate as agricultural teachers, it is deemed advisable to set forth a rather fundamental characterization of the high school course in Farm Mechanics.

Perhaps this may best be approached negatively. Farm Mechanics is not Manual Training, except incidentally. As usually understood and practiced in the schools, Manual Training has a general rather than a specific purpose. Its advocates have always taken care that it should stop short of developing in the pupil a greater interest in any one sort of hand occupation than in others. It is supposed to develop a general dexterity of hand that may later be turned with equal ease in the direction of any one of several trades, but having its chief value in mental culture and discipline. The typical instruction in the earlier manual training courses was set forth in a carefully graded series of formal exercises, of which certain standard types of mortices and joints are familiar examples. The work had no objective beyond the attainment of accuracy, of execution, and the tool-using skill, mental development, and moral training thus incidentally acquired.

The "culture" concept of manual training proceeds upon the same assumption as that which supported the old alphabet method of teaching reading—that no progress can be logically made in doing the real thing until the mechanical *elements* of it have been abstractly learned in carefully graded "exercises." It is the adherence still given to such notions, and the practice resulting from them, that leads Professor Chamberlain to say: "I know school men of broad education, open-minded and scholarly, who still refuse to believe that the manual training of today has a place of importance in the school."

However, Manual Training is continually improving; but the improvement is coming through a rejection of the limitations of its earlier ideals and adopting instead, some of those that are suggested by the practice of the most progressive industrial and trades schools. The only point here made is that Manual Training, as popularly understood, is *not* identical with what is meant by the term Farm Mechanics. And the real purpose of the latter is largely defeated if the range of practical work done in the course is limited by the older Manual Training ideals.

On the other hand, Farm Mechanics is not specific trades instruction, unless a new trade, that of the farm mechanic,

is to be recognized. Farm Mechanics does not attempt to teach the student the *fundamental principles* underlying all trades nor any special degree of skill in any of them. But it does attempt to teach him how to do in a practical way, a large range of *specific things* that, separately considered, logically belong to one of these distinct trades, and yet belong also to the work of an all-round modern farmer.

Because of its novelty and the general lack of precise information on the subject, the year's work in Farm Mechanics included in approved New York high school courses in agriculture has been definitely outlined in a special syllabus issued by the State Education Department (Bulletin 500). This is the first syllabus published on the subject for high school use. It covers a range or work broader than is yet offered in some college courses in Farm Mechanics. It is used as a guide in at least one of the New York State Schools of Agriculture. Every prospective teacher of agriculture in New York high schools maintaining an approved vocational course is expected to become familiar with this syllabus. If his own training or practical experience has been limited in this line of work, it may be necessary that he shall supplement it by special study before a state certificate can be secured.

The caution is usually needed against spending too much time in *execution* after a piece of work has been carefully planned. (The planning is mostly done in the mechanical drawing class.) Time is the one thing which the practical farmer must learn to economize. Nobody stands ready to pay him forty to sixty cents an hour for achieving perfection of workmanship on a quick repair or construction job. Neither can he afford to pay at that rate for work that can be made efficient and serviceable at a lesser cost. One of the chief reasons why needed improvements in buildings and equipment are not made more rapidly on the average farm is the prohibitive cost of labor that is skilled—more or less. The Farm Mechanics student must, therefore, learn how to *get things done* and as many things as possible during his year of special training in this line.

It is recognized that this sounds much like an excuse or justification for slovenly work. The high school principal is sometimes alarmed at the quantitative suggestion. It is true that some work must be done "over" until it comes up to a reasonable standard of good execution. But a piece of work in Farm Mechanics must be judged by its purpose and its efficiency. It is made to be used rather than to be admired for the excellence of its workmanship. Comparatively little of the real mechanical work done on the farm is to be varnished—much of it may not even be painted; but it should be correct in principle and economically adapted to its purpose. The more of such work that can be done in the year's course in the high school, the better. Space will not permit here an enumeration of the topics that should be studied; the syllabus referred to affords full information to those who wish it.

As distinguished, then, from Manual Training, the course in Farm Mechanics is not closely graded, it aims not so much at personal skill of hand as at the *understanding* and *application* of mechanical principles in farm work, and its products are designed to be put to the test of practical *use* rather than to satisfy mere esthetic standards. It prefers, for example, to produce a mechanically correct "evener," rather than an artistically correct dove-tailed joint on an inlaid collar box. It builds a concrete walk rather than a china closet. It designs the model of a farm gate or a gasoline engine rather than a hand loom. It constructs a set of farmers' bulletin cases rather than an ornamental pen tray. It makes a serviceable grafting tool in preference to a carved paper knife. It does not discourage skill and good workmanship, but it saves time to develop the "know how" to attack all sorts of problems that the handy man on the farm is expected to

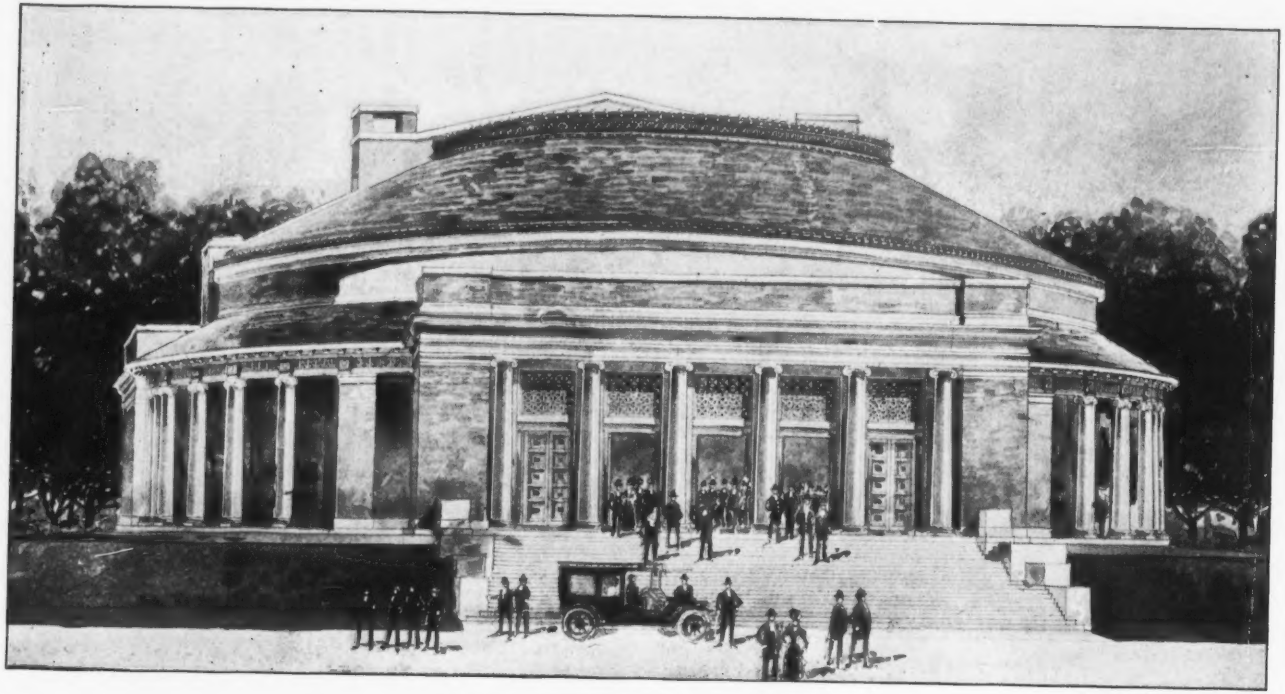
solve. It does not teach the "use of tools" but it *uses* tools in the construction of things that are themselves to be used.

Parallel with this course in Farm Mechanics is the related course in Mechanical Drawing. It may seem hard to say here that care should be taken not to over-emphasize technical skill and exactness. Mechanical Drawing is generally conceived as having its chief value in this sort of discipline. And repeated exercises for the sake of greater skill may not, in this course, constitute the positive hindrance that they sometimes do under a wrong conception of the course in Farm Mechanics. But here again it must be remembered that the time element is not unlimited and that the purpose of the work is not to develop professional draftsmen. A penciled memorandum sketch may often be more serviceable to a busy farmer than an elaborately executed mechanical drawing; but the better he learns how to draw, the more serviceable his hasty sketches may be. The principal caution to be suggested relates rather to suitable subject-matter in the drawing course.

It is not the purpose of the course in Farm Mechanics and Drawing to train students away from the farm. If some of them learn through it to believe that they are better fitted to become carpenters, draftsmen, or machinists, than practical farmers, the course will still have had great value for them in having enabled them to discover themselves, and on its culture side, in developing a better appreciation of the modern farmer's problems.

As to the relative value of the Farm Mechanics course in a four-year scheme of high school agricultural instruction, the State Education Department is entirely willing to submit its judgment to the test of time, provided only that the right conception of the real purpose and plan of the course is understood by teachers, students and school patrons. Already it has proved the most popular feature of the entire vocational course in agriculture. Set at the beginning of the four years' work, its attractiveness exerts a strong pull upon the farm boy who is debating whether, if he is to be "only a farmer," it is really worth while to take a high school course at all. Preceded as this work is by an elementary agricultural course in the eighth year, the boy has a proper background for his study of the mechanics of farm work; and with this year's work outlined and covered in the ninth grade, he may draw upon it or extend it in any of the three years that follow wherever he has need of using his mechanical knowledge. Such opportunities come naturally in connection with the study of tillage implements, the construction of poultry appliances, and in the use of potato planters and diggers, spraying machinery, cream separators, and other devices that belong to the special courses taught. Furthermore, if he is not held too strictly to mere drill exercises, he can acquire in the first year the fundamentals of this entire range of farm-mechanic interests, at a time when they appeal to him strongly, and when he is not yet adequately prepared to take up the more theoretic and scientific phases of agriculture that properly come later in the high school course.

Finally, the agricultural teacher who is prepared to give correct and efficient instruction in Farm Mechanics thereby proves his value to the community more conclusively than he could by any amount of advanced scientific information that has not yet been "reduced" to local practice. The patron of the rural high school appreciates the teacher who can "do things" with his hands, who can milk a cow, harness a horse, and handle a plow. And he especially appreciates and expects this ability in the teacher of agriculture. When the Farm Mechanics class makes real things at school that actually "work" when put to practical application on the home farm, the teacher has established in the farmer's mind a hospitable attitude toward the newer ideas of scientific agriculture, which otherwise are often met with a somewhat doubtful eye.



THE NEW AGRICULTURAL AUDITORIUM.
As it will appear when completed.

Green & Wicks, Architects

THE TEN-YEAR PLAN FOR THE COLLEGE OF AGRICULTURE

By Dudley Alleman, '14

AGRICULTURE has never attracted so much attention from the world at large as to-day, nor has it ever needed so much attention. In the past, little thought has been given to the future of the food supply of the country, but of late it is beginning to be seen that with the exhaustion of available lands in the west, and with our increased consumption, we will soon face new and grave problems. Typical of this greatly increased interest in agriculture is the growth of our college, and the general financial support it is receiving from the state shows that our legislators recognize the important role agriculture will play in the future of our country.

In 1904 the College of Agriculture at Cornell University became a state college by an act of the legislature, appropriating a quarter of a million dollars for new buildings and general expenses. The establishment of the college as a state institution gave great impetus to the work and set in motion many additional kinds of effort. The number of students in attendance at the college is a true indicator of the interest felt in the institution throughout the state. The registration has greatly increased since the first appropriation. In 1904 it was 296; it has kept increasing year by year until in 1908 it was 655. During the past year the total registration was 1,556.

This large registration has produced a serious and critical condition. In the Departments of Poultry Husbandry, Plant Physiology, Plant Pathology, Entomology, and Biology, many have been denied admission. In many laboratories a number of students have been turned away for lack of room, and in agriculture, as in no other study, laboratory practice is essential. All the laboratory space in the college is fully and continuously used, and yet certain courses have had to discontinue laboratory work altogether. The department of Biology in the elementary course expected about 150 students, but it has registered 306 and refused admission to 85. Plant-breeding last year had 34 students and now has 55 with no more laboratory available. These are but a few of the many such examples of the crowded conditions of the majority of classes.

The increased registration of regular four year students in some of the principal departments is shown in the following table:

	1908–09	1911–12
Pomology	87	351
Plant Pathology	51	105
Farm Mechanics	107	145
Farm Crops	40	146
Entomology and Biology	281	658
Animal Husbandry	105	427
Plant Breeding	34	168
Home Economics	14	125
Plant Physiology	69	200

In January 1910, the "ten year plan" of the College of Agriculture was first proposed. The "ten year plan" is the general scheme that was first outlined for the purpose of putting into graphic form the probable needs of the College of Agriculture and the Veterinary College in the way of buildings, for the succeeding decade. The outline of this plan was submitted to the state legislature.

The legislature, realizing the need of the greater facilities for teaching and experimental work, has broken all records for the amount of appropriation. The legislature authorized the College of Agriculture to expend $917,000, of which $788,000 is immediately available. The Veterinary College received $105,000, bringing the total up to $1,022,000. Of this amount, $329,000 is for the erection of new buildings for the use of the Departments of Forestry, Agronomy, and Animal Husbandry; $129,000 of

this amount is not appropriated, but the College is authorized to lay contracts for it. The following is the distribution of the appropriation:

	Est'd	App'd
Heating plant	$ 50,000	$ 50,000
Auditorium	113,000	138,000
Poultry Husbandry	90,000	90,000
Plant Industry	245,000	100,000
Home Economics	154,000	154,000
Greenhouses	50,000	30,000
Animal Husbandry	252,000	129,000
Chemistry	146,000	
Horticulture	211,000	
Entomology, Zoology	234,000	
Dairy Industry	144,000	
Agronomy	100,000	100,000
Rural Art	48,000	
Farm Mechanics	133,000	
Barns	19,000	20,000
	$1,989,000	$811,000

In the case of the Poultry Husbandry building, the plan calls for small buildings and appurtenances to cost $19,000 which has not yet been secured. With the appropriation of this year, nine buildings will probably be in course of construction at the same time. In the future as one passes through the Campus of the College of Agriculture from west to east, he will pass in succession the following new buildings: the Auditorium with class rooms, the Agronomy extension, the Home Economics building, the forestry section of the Plant Industry building, the Poultry Husbandry building, the heating plant, the headquarters building for Animal Husbandry, the stock judging pavilion and finally, the barns.

The Department of Forestry is to have a section of the proposed Plant Industry building. This building and its wings will eventually house the Departments of Plant Breeding, Plant Physiology, Plant Pathology, Forestry, and others. The forestry section will be the first part of the building constructed. It will be west of the Poultry building near the Carnegie Filtration plant. The Forestry Department is now occupying a few rooms in the basement of the main building. In the fall this department will be moved to the east end of the third floor of the new Home Economics building. For the construction of the Forestry section the sum of $100,000 is appropriated.

A like amount is given by the state for the building of an extension on the Agronomy extension of the main college group. The present Agronomy building will form the stem of a "T," of which the addition will be the top, if tentative plans are followed. As the Dairy building already has an "L," the addition on the Agronomy building will balance the group. A large lecture room and several laboratories and recitation rooms will probably be provided by the addition.

The Department of Animal Husbandry receives the largest of these appropriations. Its share of the total contract is $129,000, of which $91,000 is for a laboratory pavillion and $38,000 is for a judging pavillion. These buildings will form the eastern end of the agricultural quadrangle, now bounded on the north by the Home Economics building and on the south by the main buildings of the college.

Besides the appropriations for buildings, $265,000 is appropriated for the current expenses of the college, and $141,000 in what is known as the supply bill. Of this, $50,000 is for extension work on farms and with the farmers of the state; $30,000 is for equipping the Home Economics building; $15,000 is for equipping the Poultry Husbandry building; $10,000 is for additions, etc.; $10,000 is for grading and walks; $4,000 is for Summer School; $20,000 is for providing extra instruction in physics and chemistry; and $2,000 for investigating the diseases of gladioli and other bulbous plants.

The home economics and poultry buildings and the central heating plant will be completed next fall, and will relieve the congestion in the main college buildings. If the auditorium is ready for occupancy by the opening of the short course in December, most

of the departments will have enough room during the winter. The crowded condition of the dairy building will be relieved by the poultry department moving into its own building and the department of rural art moving into the home economics building. In the main building the room vacated by the departments of home economics and forestry can be occupied at once. When the heating plant is moved and the auditorium completed, the present auditorium of the main building will be used as a library. The book stacks will be in the present boiler room.

The new horse barn will be completed early in the summer. The architects are now at work on the plans for the Agronomy extension, the Forestry section, and the two Animal Husbandry buildings.

The new buildings are of fireproof construction, being among the best buildings on the Campus. The grounds of the college will necessarily be in a very unfinished condition for several years; but it is hoped that the western end of the compound will be put into complete condition next year and the year after. The western end of the road running east and west from the University Library, in front of the buildings, will be put in condition this summer, and some of the tree planting has already been done.

WESTERN TILLAGE METHODS IN HUMID AGRICULTURE

By Alfred Atkinson

Agronomist at Montana State College, Bozeman, Mont.

WITHIN the temperate zone, agricultural land areas are commonly classified on the amount of the precipitation. Various divisions have been suggested, but the custom of considering localities as humid, with over 20 inches precipitation; as semi-arid with less than 20 and over 12; and as arid with less than 12, is now pretty generally followed. Previous to a rather recent period, semi-arid and arid areas were considered as of value for grazing purposes only. The sad experience of some pioneer western crop raisers had seemed to prove that the country was too dry to make crop raising profitable.

During the past twenty years, the increase in population, the back to the land movement, and the human tendency to go west, have resulted in the settlement for farming purposes of much of the western grazing land. A certain percentage of the settlers have failed. A large number have met with a fair degree of success. A few have been highly successful. The returns on these successful farms indicate agricultural possibilities in the semi-arid west, and the methods which have led to these successes are of interest.

The semi-arid or dry farming west extends over a wide range of territory and includes a variety of conditions. The annual precipitation varies from 12 to 20 inches. The distribution of this, which is an important factor, is different in different localities. In some of the sections west of the Rocky Mountains, a large percentage of the moisture falls during the winter months. In other sections 60 percent of the precipitation comes during April, May, June and July. The distribution of moisture supply influences the cropping system and tillage methods.

The average annual precipitation in the humid central and eastern states is from 28 to 50 inches, Some years when rather general drought losses are reported, the records show a moisture supply amounting to 30 inches. The fact that thrifty agricultural communities are established and comfortable homes maintained in localities of uniformly less than 18 inches sug-

FLAX GROWN IN 6½ INCHES OF PRECIPITATION DURING GROWING SEASON.

gests the possibility of preventing these drought losses.

For the dry land farmer, prompt and thorough spring tillage is of the highest importance. The moisture which the soil contains when spring opens up must be held if a paying crop is to mature. As soon as the soil is dry enough, all fall plowed land is given thorough surface tillage. To get over the fields quickly and stop the loss of moisture the land is harrowed. In case of rain a second harrowing is given.

Before planting, which is usually as early as a seed bed can properly be made, the land is double disked and in some cases rolled or packed. When packing is done harrowing follows immediately. The cultivation is designed to prevent unnecessary moisture loss by maintaining a surface mulch, and the seed bed is packed to bring the upper seed bed layer in close contact with the moist lower soil layers.

Throughout the corn belt and small grain states of the humid area, the practice, all too common, is to leave the corn ground or fall plowed fields several days or even several weeks after the soil is in condition for cultivation before any tillage is given. During this time moisture is being rapidly lost. The soil which contained a high moisture content to a depth of 8 to 10 feet loses the moisture until only the upper 3 or 4 feet contain available water for growing plants. When the dry period comes, and the water necessary for growth is not supplied from above, it is not present to be supplied from below .The result is serious reduction in yield and drought losses are reported. Had the unnecessary loss in April been prevented the equally unnecessary loss in July and August would not have been recorded.

A second feature of semi-arid soil cultivation which would bear more general imitation is the tillage immediately following the plow in spring

MONTANA-GROWN MACARONI WHEAT—GROWN WITHOUT IRRIGATION.

plowing. The practice in many humid sections is to plow all of the field and then go back to "work it down." When moisture conservation is accepted as the governing essential, tillage is completed as the plowing proceeds. The land is harrowed or in the case of sod is disked as soon as the furrows are turned. This retains the moisture, prevents baking and sets aside the possibility of a condition where the land needs "working down."

In practice two methods are generally followed to give prompt cultivation after plowing. One of these is to attach a small rotary disk to the plow. This cultivates the two furrows last turned. Another plan is to hitch a horse to one section of a harrow and have this horse walk on the plowed land beside the plow team. When the plowing is finished a surface mulch has been established.

For the man who is raising live-stock one of the perplexing problems is the question of pasture supply. It is not difficult to arrange for sufficient pasture if there is enough rainfall. By providing green crops to be fed when pastures are short, it is not difficult to provide in case of a dry season. The uncertainty makes it a problem to know how to arrange any particular year.

Observations in irrigated regions lead to the conclusion that an irrigation system in the pasture field is the only absolutely satisfactory method of solving the pasture tillage problem. Water cannot be accumulated in the pasture to provide against a dry period. The only method is to accumulate in streams or in reservoirs and turn on the supply when rainfall becomes inadequate. In many sections water may be supplied from wells. In other cases reservoirs in narrow ravines, will make possible the holding of spring flood waters. Where creeks maintain a supply through the season it is frequently possible to convey water to the fields by means of gravity ditches.

Where dams have to be built and pumping plants provided the initial outlay may be considerable. However, to be able to maintain the pastures at their maximum carrying capacity makes for certainty in the organization and much higher average returns from the live stock. During the season of ample rainfall the irrigation plant costs nothing for operation. For the season of drought a full supply of grass is assured and losses from the reduced condition of the live stock are prevented.

POTATOES, 7½ INCHES RAINFALL DURING GROWING SEASON.

THE NEW LAZY CLUB BUILDING

By A. C. Beal

Assistant Professor of Horticulture, Cornell University

IN a large, rapidly growing institution, it is impossible to develop the social side of college life as it exists in the small college. It is the influence of helpful, inspiring instructors and the friendship formed that are prized by all college men long after the subjects taught have been forgotten. The class spirit which serves to strengthen the fraternal bond between members of the various classes in the small college is not found in the large institution except as it is fostered by athletics. That this influence may not be wholly lost the group or club system has developed.

The greatest hindrance to the attainment of this ideal on the part of the clubs is that these organizations usually meet in classrooms hedged about by certain official restrictions and in the class room atmosphere. The organization has no opportunity to provide the proper setting for its meetings, consequently there is not that informality which is so necessary to place every one at ease.

If the clubs could have small buildings, of such design as is expressive of their work and purpose, in which they could hold their meetings, no doubt they would be more effective than they now are. Each club could so furnish its quarters as to give the distinctive atmosphere so much needed in all these organizations. Then the student and instructor could meet on a common footing in friendly discussion of topics of common interest and thereby strengthen the bonds of friendship that would be an abiding memory throughout the life of each.

This plan may soon be realized. The Lazy Club, the oldest organization in the College of Agriculture, long enjoyed the distinction of having its own club room which was the center of interest to all persons who were lovers of plants. For more than fifteen years this club has dispensed information, good cheer, and friendship among the attendants at its meetings. It has a warm place in the hearts of scores of horticulturists now making name and fame throughout the United States, her dependencies and Canada. When the old greenhouse range was torn down, it was felt that the homely little building in which the Club met should be preserved as an historic landmark of the old College of Agriculture, as well as a center of sentimental interest. The building was preserved intact and will be moved to the new site assigned by Director Bailey. This will be associated with the new range of glass and near the main group of agricultural buildings.

It is proposed to enlarge the Lazy Club headquarters, incorporating the old building into a structure of larger size and more pleasing design. In coöperation with the Department of Landscape Art, plans have been worked out. The old club room, preserved in its original form, will be used as a library and reading room. The new club room will accommodate our present attendance, although no attempt has been made to popularize the Lazy Club. It will continue, as always, for the man of broad horticultural instincts.

It is fitting that the Lazy Club, the pioneer of all the agricultural organizations in the College of Agriculture, should lead the new movement. The Director has agreed to find half the money necessary to establish the club house on the new site. Unquestionably a large majority of the former members would like to express their good will toward the famous Club by contributing something toward its re-establishment. That the members may have an idea of the situation, circular letters have been prepared and mailed to all those whose address is known. The contributions already received from the very few who have been aware of the plans being made have been most gratifying to the committee.

THE COUNTRY CHURCH IN RELATION TO THE RURAL COMMUNITY

By Stanley A. McKay, D.D.

Gasport, N. Y.

THE recent wide discussion of the relation of the church to the community indicates a deep conviction that the church is a potent factor in our modern life, and that so far from the age outgrowing it, there may now be opening before the church wider ranges of activity and greater opportunities for service than it has heretofore entered upon. This view, shared by nearly all writers, may well be considered by students interested in the forces which hereafter are to affect the rural life of this country. What conditions then, in a rural community, may the country church, if true to itself, be expected to meet and minister to?

First: The deepest needs, the noblest aspirations, and the most powerful motives of men are religious. The very essence of christianity is religion. The primal and necessary activity of the church, both in service to men and in truth to its foundation elements, is the proclamation and propagation of religious truth. Its domain of transcendant benefaction is of things religious, spiritual, and eternal.

In this propagation of religious truth—the carrying of it into the hearts and lives of men—the church not only best fulfills the purpose of its existence, but supplies a need met by no other agency known to men. Anything that promotes this service of the church adds to its efficiency and should be encouraged, while anything that detracts from its spiritual influence or religious activity is to be dreaded and avoided.

Second: The next great need of men is to transmute religious truth into terms of every day life, that is, to live it in our relations to other men. It has been found that the best, the only practical way to do this is to put into effect certain precepts known as moral principles. The need of exercising these principles is felt by many who would differ widely as to their source. Yet so thoroughly are the purest moral principles intertwined with the christian religion that men at once judge the one by its incorporation with the other, i.e., a religion without morality is false and morality without religion has no sufficient nor adequate standard. It has thus come to pass that men look to the church for the best interpretation of morality and demand from it such interpretation as shall stand the severest test of human experience.

An imperative need today is a strong setting forth, by the church in the rural districts, of principles of morality. The old time idea that the morality of the country is greatly superior to that of the city is forever past. The advent of the rural mail delivery has brought the great city daily newspaper into almost every home. Its stories of vice and evil are discussed and thought over everywhere.

During the next year those who study the moral conditions of rural life will be awakened to find that the gambling habit, expressed in terms of ante-election bets, is strongly intrenched in country districts. The morals of these communities cannot be said to be improving in any satisfactory way, and the actual deterioration of much of our rural population, along these lines, is a matter of serious and portentious import for the future. We are told that the hired man who once coöperated faithfully and intelligently with his employer is no longer to be found, while in far too many cases the son of the employer because of evil habits and lowering tendencies will never be able to fill his father's place.

To check all this, to turn the tendencies of rural life upward as they

ought to be, and *can be*, we need a clearer, stronger inculcation of morality by our country churches. The church must stand four square to every moral principle, and must make its influence for good felt in active and unrelenting opposition to all forms of evil, both public and individual. We are told that this may be done in the school. Not so in rural districts. The young and inexperienced person usually employed as teacher is not fitted for the task. The presentation of moral principles by a church is best accomplished through a congregation of mature people supposedly led by a pastor of strong intelligent convictions, and it is the province of such a country church to serve the community by a strong and aggressive setting forth of high moral ideals, and such a conserving of moral principles as shall promote the highest type of private life and of public citizenship.

Third: The question yet remains as to what activities the church may enter upon to best realize its influence upon the community. For the most part and happily there is no large class of the "submerged tenth" in the rural districts calling for such activity as is indicated by the term slum work. There are, however, individual cases where the hand of charity may find helpful service and it may be said that generally these needs are reasonably well met. Abundant avenues for service are open, in the case of the sick, and in cases of personal affliction. That church is not wise which leaves this form of helpfulness entirely in the hands of fraternal orders. The church has its duty, which done will not lessen good will nor the spirit of coöperation anywhere.

No hard and fast rule for any special activity, applicable at all times and places, can be laid down. In one field a reading room may meet public needs with great benefit and success, while in other fields the public needs may lie in entirely different directions.

One great opportunity for good in a rural community is the educative value of an organization conducted on a high plane of strict business principles. The church in its financial management ought to be as clear cut and as well conducted as the best of our banking houses. A sad lack of business management has brought many a church into public disfavor and has wrecked not a few. Such churches have not only suffered themselves but have lost the opportunity for inculcating such business principles into the minds of the young under their influence. This real fact of experience is rarely taken into account when business men ask that business principles be incorporated into the financial activities of the church.

It may be said, then, that the activities of the church should be marked by an alert regard for the present needs of the community and by real effort to supply such needs. Along social lines it should minister freely and wisely, never forgetting that humanity has real, social needs that somehow will be met as long as men and women are social beings. Happy is that church which will so serve the people that cordial good will and fraternity shall characterize the life of that community.

The spirit and influence of the activities of the church should be such as to leave upon the minds of those to whom it ministers an abiding impression that in these things the church is moved not alone nor primarily to seek its own welfare but theirs; that it is not a sponge to absorb but a fountain to give forth. The church that seeks thus to serve the public will soon find enough to engage all its activities of helpfulness and will not lack those who will fly as doves to its windows for such help as shall make for betterment of life here and hope for a life hereafter.

KERRY AND DEXTER CATTLE

By C. S. Plumb

Professor of Animal Husbandry, Ohio State University

FOR many years there has existed in Ireland two breeds of small cattle. One of them, the Kerry, is black of color, and is purely a dairy breed. The Kerry has been bred in Ireland for a very long time, and nothing definite is known of its origin. It has occupied an important place in the farm economy of south-west Ireland, where it is found in largest numbers today. Probably no breed of cattle has been bred under such conditions of poverty as this, and it is doubtful if any other can thrive on such meagre rations as this one of Irish production. The other, known as the Dexter, frequently called Dexter-Kerry, is usually black, though red is not uncommon. This is one of the smallest breeds of cattle known. This breed is said to have originated in Ireland through the efforts of a Mr. Dexter, who developed it through selection. Claims have also been made that the Dexter is the result of a cross of Kerry bulls on Shorthorn cows, but there is no good authority for this statement.

While the Kerry is essentially a dairy breed, the Dexter is adapted to both milk and beef production. The Kerry bull should not weigh over one thousand pounds and nine hundred is the limit on standard size of mature cows. The Dexter averages about one hundred pounds lighter in weight for both bulls and cows. The tendency is to produce a small class of Dexters, and some very beautiful females weigh right around five hundred pounds. At the shows, one may see many Dexters that do not stand higher than forty inches.

The usual question of a man inquiring about a little known breed is one of profit. Does this or that breed pay?

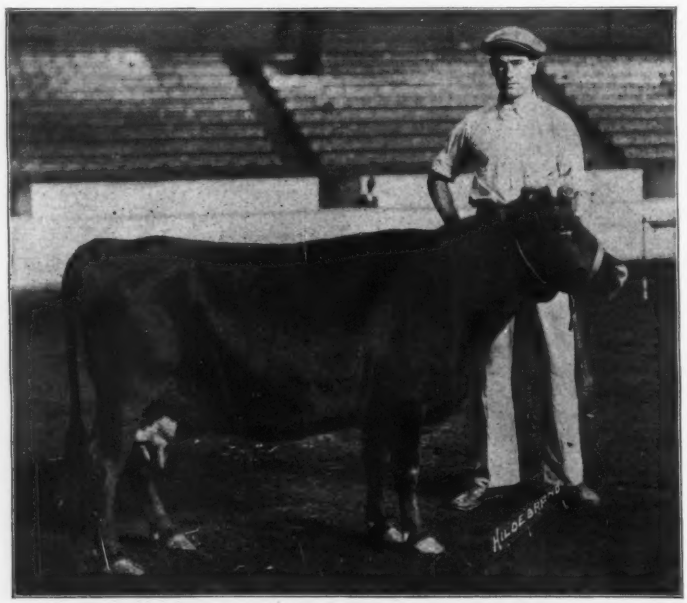
These Irish breeds are but little known in America, yet specimens reached our shores many years ago. In 1859 five two year old Kerry heifers and a bull were imported for Arthur W. Austin at West Roxbury, Mass. These, it is claimed were the first to be exhibited in America, and at the time they attracted much attention in Massachusetts. They were excellent

A PRIZE WINNING KERRY COW.

producers of milk and very hardy. At intervals since then, both Kerry and Dexter cattle have been brought to this country in a very small way. Recently, however, there has been a great increase in interest, and quite a number of cattle have been imported. This resulted in the organization in 1911 of the American Kerry and Dexter Cattle Club, with headquarters at Columbus, Ohio. There are also associations representing these breeds in both England and Ireland.

The milk producing capacity of the Kerry is very good, when one considers the size of the cows and cost of keep. There are various records of cows producing 5000 pounds or more a year, the best record within my knowledge being made by Babraham Belle, in England at the famous Babraham Farm of Mr. C. R. W. Adeane. This cow produced 1220 gallons of milk, or about 10,000 pounds. Kerry milk tests about 4.25 per cent fat, an excellent grade. Professor James Long, a noted English agricultural authority, has called attention to the producing capacity of the breed, and has especially emphasized the improvement made in this respect.

The Dexter is an interesting little breed, and many of the cows have remarkable udders. At the last National Dairy Show, Mr. Marsh, the noted Guernsey breeder of Iowa, spent some time with the writer, looking over the Dexter cows exhibited there by Howard Vanderbilt and the Elmendorf Farm, and was much impressed with the udder and milk vein development. Mr. Gould has had very interesting records made in his herd, one Dexter cow yielding in 1910 a total of 8268 pounds of milk. Mr. Robertson of Ireland recently sent me a photograph of a Dexter cow that was making 22 quarts of milk daily, which is a good size yield for a cow of 1200 pounds. This little Dexter cow stood just about 36 inches high, estimating by the height of a man alongside. I think such a producer must yield milk and butter fat at a minimum cost.



DEXTER COW, GORT SUNBEAM, 2ND—24 (2285E) IMP.

In recent years the Dexter has been made much of by people of means. Wealthy men in different parts of the country have established herds, and are breeding them in a serious way. There is one herd of about 200 head of Kerries and Dexters already in the country, most of which are imported. There are also several herds of from 25 to 40, and a number of smaller ones. Are these breeds to be reckoned with seriously in the future? Probably not in a large way. Yet it seems to me that there will be a constantly increasing demand for them, on the basis that, for the cost of keep they will yield a maximum quantity of better than average milk at a minimum cost. If one were interested in having a breed that would attract much attention and yield profit from an advertising point of view it would be difficult to select anything equal to the Dexter. These little cattle at once appeal to the lover of animals, and they become prime favorites with women and children. If one wishes to keep a small cow in town, nothing will equal a good Dexter or Kerry for this purpose. They occupy small space, thrive on an inexpensive ration, and are easily handled by the young folks. One interesting field for the breeder would be to produce these cattle for this special home purpose. They are not expensive, and can be purchased at very reasonable prices.

A SUMMER IN THE WEST

By H. G. Honeywell, '13

LAST spring, five Cornell students conceived the idea of "doing" the great wheat belt of the United States. They sent letters to state employment bureaus and commission bureaus in the effort to line up a full summer's work in the wheat as it ripened from Kansas to Canada. They laid and carried out plans to be in the wheat belt of western Kansas ready for work on June 20th. Four days were spent on the journey, one at Buffalo, one at Chicago, chiefly in the stock yards and the great packing houses of Swift & Co., and Armour & Co. From the Kansas State employment Bureau they learned that the Southwest had had three weeks of very dry, hot weather which had burned the wheat crop so that much of it would never be harvested. All the men who had come to help in the two states where work was ordinarily plentiful had thronged into this belt looking for work. Harvest was well under way.

Against the advice of the employment bureaus the intrepid students took their chances and went to Belpre. There they found more men than wheat but by hunting work while others waited for work to hunt them all had places before night at $2.50 per day. This was the last time all the five men were together until they returned to college in the fall.

Wheat harvest in the west is quite different from that in the east. The outfit consists of a header, a machine pushed by six or eight horses having a fourteen foot cut, a table carrier and a reel; two two-horse barges or wagons having long boxes six feet high on one side and two feet on the other; and six men with forks, one to ride the header, one to stack the heads and two men for each barge. One barge is loaded under the carrier of the header while the heads are being pitched out of the other onto the stack. Two oblong stacks containing the heads from about 25 acres are built side by side so that the thrashing separator can be placed between them and both stacks thrashed at the same time. Thirty acres is considered a fair day's harvesting. The weather last year in Kansas during harvesting was excellent. The temperature averaged about

110° in the shade but where the work was going on it was above 120°.

By Saturday two of the students were "burned out" and started for Kansas City. The other three all on different ranches stayed a little more than a week longer, then thinking they would like a thrasher's job, took observation lessons for a few days after which they willingly left the country for the North.

First they came to Kansas City but stopped only to get an outside view of the block outside the Union Depot notorious as having a greater number of saloons than any other one block in America, every saloon has its street crier. From Kansas City they went up the Missouri River Valley to Omaha, then to Sioux City. This strip of country three hundred miles long and about five miles wide is for the most part a continuous field of gigantic corn, broken into by an occasional wheat field, or pasture triple in size to what we Easterners are used to seeing. Not being early enough for harvest in the vicinity of Sioux City, for the drought had affected all of the middle west as far north as Fargo, North Dakota, they went on to Sioux Falls, Granite Falls and then to Hazel Run where they worked six days. To make sure of being in wheat at the next stop they headed for Grand Forks, N. D. There was grain to be sure but it was not ripe. Here a former instructor in the Cornell Farm Mechanics Department, then attending the fair at Grand Forks came to their aid, obtaining for them jobs of leading Galloway cattle at the fair from a stockman to whom they afterward hired for a month. Part of the month was spent in harvesting and threshing and the remainder in waiting for it to stop raining. On September third they started east by way of Duluth and by boat through the Great Lakes landing in Buffalo with tougher feet and fifty cents gain as their summer wages.

In the meanwhile, to the two students who had come to Kansas City first, the western adventure looked rather gloomy. They spent two days hunting any kind of work, then one worked in a city dairy and the other weeded garden, but neither job lasted long. From the dairy the writer went to Swift & Company's packing house yards starting as cart driver collecting meat racks, and in three weeks he had a sample of nearly all the duties a driver is called upon to perform in the plant.

Soon the three remaining members of the party, being unable to find work, started for St. Louis. But work in St. Louis was scarce and pay day was always a week away. Turning to the East their next problem was to reach home. Now having become expert travelers, four days' time and the expenditure of a very small sum of money brought them to Indianapolis. Here they were met by eastern capital and soon reached home none the richer but truly wiser.

On the 13th day of July the writer started north alone through the Missouri Valley bound for Minneapolis, but in no hurry, traveling only in the day time and but few hours a day. Stopping for a day each, at Omaha, Sioux City and Sioux Falls, and looking for work, but a job could scarcely be bought. Then after a week's traveling he stopped at Minneapolis with only 23 cents in his pockets. Here the sky was clear and work plenty. Since vacation was growing short it was necessary to move homeward. Accordingly in the middle of September this trip was completed and a net profit of ten dollars realized for the summer.

Anyone contemplating a trip through the United States wheat belt will see by the preceding that it is best to have a well established correspondence with a base of finance, as things do not at all times work for the apparent good of man. Yet if you will ask any of these fellows whether they consider such a trip worth the while you will get a decided answer in the affirmative.

EXPERIENCE ON THE FARM

By E. S. Guthrie

Instructor in Dairy Industry, Cornell University

THERE are certain essentials necessary for the success of a manager; among which are character, knowledge of the business, and ability to manage men.

The second named essential naturally must be mentioned as a requisite of the leader in any business. This is the one to which the writer shall confine his attention.

It cannot be expected that a farm manager, who has never harnessed nor cared for a horse in any way could command the respect and confidence of his teamster. The herdsman expects his superior to know cattle. This leader of the work on the farm should have had sufficient work with a team to know when it is being carefully cared for and when it is doing a full day's work. Likewise he should appreciate careful work on the part of the herdsman. Similar knowledge regarding other details of the business must be known by experience.

The question may well be asked, when should a man get experience on the farm and the necessary acquaintance with farm methods? It would seem that the proper time for obtaining such knowledge should be before a student has entered college or at least not later than the first summer after entrance. It is very necessary in most of the courses that have relation directly to work on the farm that the student know the difference between a brow band and a ham string, a reach and a neck-yoke, an end-gate and a side-board. It is to say the least embarrassing, for a graduate of a College of Agriculture to have to learn from the farm laborer things that are being taught to boys in knee breeches. But whether a graduate or a freshman or a youngster in short trousers the common things on the farm and in farm life must be learned before a person can properly manage a farm.

The advantages that a farm trained boy has over the one who has not worked and lived on the farm are many. It is *unfortunate* in our College of Agriculture that our farm boys cannot use their training to count toward entrance. *In this* our city boys who have had access to good schools have had the advantage. But there is one thing which the writer fully believes should be done which would not be an injustice to the boy who has not been on the farm, and which would help to make our teaching better and the results far more satisfactory, i. e.; demand for entrance to our College of Agriculture to the courses leading to work on the farm that a man be farm born and raised or have the experience of two full year's work on a farm after the age of sixteen. If the city boy has difficulty in finding a desirable farmer with whom to work let him pay that farmer tuition for a short time until he learns how to labor on the farm. It is no more than the farm boy is doing when he goes to school, for at present he is often compelled to stand the expense of one to three years and often more in training himself in the city for our entrance requirements.

Some of the readers may wonder why the writer is not advising students in dairying to work in creameries, cheese factories, etc., before becoming students of agriculture in the Department of Dairy Industry. If such is the case the reader does not appreciate that the largest percentage of the difficulties of managing a dairy product manufacturing plant comes from the farms. It is absolutely necessary for the successful management of a dairy plant that depends on the farmer for the raw product that a man become acquainted with farm methods by getting actually in touch with them.

The Cornell Countryman

JUNE, 1912

The Appropriations The state legislature, at its last session, passed appropriation bills for the College of Agriculture amounting to $917,000 of which $788,000 is immediately available. This appropriation is nearly double that of any previous year and provides for additional buildings and equipment which will greatly relieve present crowded conditions.

The general public thruout the country recognizes an awakening among the agricultural people to a realization of the fact that the successful farmer of the future must have the best of chances for a broad, scientific and efficient education. In increasing the appropriations to the college, the legislators of the state give a substantial testimonial that they approve the work of the college, and that they believe the state should aid in increasing the scope of the work which the college is doing.

Degrees The University Trustees, at a recent meeting, approved the recommendation of the Faculty of Agriculture and of the University Faculty to grant hereafter the degree of Bachelor of Science instead of Bachelor of Science in Agriculture for the completion of the agricultural course. Graduates of the college this year were allowed to choose either the degree of Bachelor of Science in Agriculture or that of Bachelor of Science. The popularity of the change of degrees is indicated by the fact that 77 of the 85 graduates favored the shorter degree. For some time it has been felt that this change would be desirable. The agricultural course is primarily a scientific course rather than a professional or technical course. Moreover, the degree of Bachelor of Science in Agriculture does not fit landscape art, forestry, home economics and certain other of our courses.

The Trustees also established the degree of Master in Forestry. This degree will be conferred upon students who have completed five years of forestry study in the College of Agriculture and the Graduate School. In addition to the establishment of these degrees, it was decided that a Master's degree, the exact title of which is not yet settled, should be given for the completion of five years of work in the department of landscape art.

Dean Bailey Dean Bailey sailed for Europe on May 21, where he will enjoy two months of much needed rest. While abroad he expects to make a study of European agriculture and of country-life movements. He carries with him the best wishes of THE

COUNTRYMAN and the student body for a pleasant and prosperous sojourn.

Students' Responsibility

One of the greatest, if not the greatest problem that confronts the College of Agriculture today, is how to make the agricultural public place confidence in its graduates. The average farmer has little faith in the college man; as an example of this, one of the departments of the college sent out a circular letter to farmers thruout the state, regarding student help for the summer. Of the few that took the trouble to answer, the great majority showed only too plainly that they had little regard for the ability of college students on the farm. The students themselves are to a considerable extent responsible for this condition. A large number have taken positions where they have been unable or unwilling to do the work expected of them. They have lacked the sense of responsibility to their employers, the college, and themselves.

On the other hand, several fruit-growers in the central part of the state, who employed students during the winter and spring vacations, were more than pleased with both the quantity and quality of the work they did. Indeed, this has been the experience of a great number of farmers thruout the state. Those students who are working this summer to gain agricultural experience, will have an opportunity to greatly influence the opinion of farmers in regard to the value of student services on the farm. No one should do anything that will reflect discredit to the Alma Mater, and everyone should work for others as hard, if not harder, than he would for himself. In this way only, can he ever hope to be of fullest service to the community.

A New Type of Farm Train

In order to afford those persons wishing further opportunity to study given farm problems adequate instruction with necessary teaching material at hand, the traveling school of agriculture has been introduced as an outgrowth of the farm train idea. As will be recalled, the typical farm train of former years made a hurried tour through a given section of the country, stopping only a half hour or an hour in a place. In this brief time a few short talks or lectures were given to arouse the interests of the people to ways of self-help. The farm train has served its purpose admirably; it has called the attention of farmers throughout the state and other states to the work which is being done along agricultural lines in the colleges and in experimental stations.

The traveling extension school is a distinct step in advance of the farm train in that the effort is made to carry actual *teaching* direct to the people on the farms. With this end in view, railroad passenger cars are equipped with tables, chairs, microscopes and laboratory materials so that a short course of study may be carried on in the school. Instead of stops of an hour or less in a town, classes of twenty-five to fifty persons in each car are instructed for a course extending over a day or several days as arranged. This gives an opportunity for instruction in subjects which require special demonstration material and a considerable period of time for proper presentation. Thus far the College of Agriculture has conducted two such

schools and has found them eminently successful. The establishment of these traveling schools marks the beginning of a newer and broader field of agricultural extension work.

Our Assemblies

At the last Assembly, Dean Bailey expressed the sentiment that the Assembly was no longer filling a real need in the college, and that its abolishment might be advisable. However, we feel that the sentiment of the student body will strongly oppose the discontinuance of these monthly gatherings of students and faculty which have come to be traditional in the College of Agriculture. These Assemblies are in the first place instructive and inspiring, and in this they fulfill a direct need. We come here not only to acquire technical knowledge but also to obtain a broad university education along agricultural lines. Where is there a better opportunity to learn of the movements being put forward for the betterment of country life than in these monthly meetings? Furthermore, an evening spent at an Assembly is highly refreshing to the student and carries his mind from the problems of the class-room to the broader aspects of agriculture. But the greatest argument in favor of the assembly is that it affords an informal meeting place where all the students may mingle on common grounds. We sincerely believe that the Assemblies in filling these needs are of direct and definite service to both students and faculty.

Seniors—The Senior Class pictures are now ready for you at the photographers.

KEY TO FRONTISPIECE

Seniors in the College of Agriculture

70 Aherne, Marg. W.
5 Auchter, E. C.
44 Austin, B. H.
65 Baker, Miss Dee
46 Barnes, Hattie
52 Barss, A. F.
13 Bell, C. A.
35 Bentley, G. E.
69 Bernays, E. L.
47 Boice, Myrtle B.
31 Brew, J. D.
59 Browning, Clara
48 Burdick, R. T.
84 Butler, G. M.
28 Carpenter, D. C.
81 Cavert, W. L.
19 Clothier, F. H.
33 Cornue, C. C.
11 Coryell, J.
3 Crofoot, H. K.
12 Crounse, S. H. Jr.
99 Dalrymple, C. O.
79 Dibble, H. E.
66 Dudley, Mildred
54 Dunn, Ada
86 Elder, David
4 Emblelon, H.
77 Emmons, C. E.
58 Faure, J. C.
82 Fors, A.
88 Fugett, J. R.
14 Georgeson, V. L.
95 Goodman, A. M.
75 Grenier, T. J. H.
73 Guldin, P. R.
7 Hamilton, G. H.
15 Hampton, R. H.
91 Hardenburg, E. V.
89 Haselton, Wm. D.
87 Hausle, J. P.
50 Hook, W. H.
67 Hunn, Anna E.
90 Hunt, Theo. M.
22 Ihde, W. C.
96 Knapp, H. B.
23 Knibloe, W. E.
39 Kraker, J. L.
25 Lacy, F. H.
101 Ladd, C. E.
1 Lattin, J. D. B.
78 Law, J.
60 Lefferts, R. S.
26 Lewis, E. T.
71 Markell, E. L.
42 Maxon, E. T.
9 McCloskey, J. B.
41 McTarnaghan, T.
98 Mendoza, J. P. Jr.
29 Mitchell, C. E.
38 Munger, H. B.
6 Nanz, R. S.
80 Newlander, C. E.
2 Otis, J. C.
62 Pearson, F. A.
100 Peck, Gilbert W.
93 Peterson, E. W.
56 Polhemus, L. H.
57 Pritchard, L. C.
85 Rappleye, W. S.
32 Rockefeller, V. H.
10 Rockwell, K. D.
63 Rogers, F. E.
30 Rogers, H. B. Jr.
68 Sands, H. C.
74 Selecter, I.
40 Smith, E. P.
43 Smith, F. A. C.
64 Smith, O. W.
51 Snodgrass, L. I.
16 Sprague, Theo.
45 Stark, P. C.
92 Stevenson, S. H.
8 Stimson, S. N.
34 Strahan, J. L.
97 Stow, W. K.
37 Switzer, H. B.
24 Temple, C. R.
27 Tenny, F. A.
55 Tilbury, M. Ruth
49 Tsou, Y. H.
61 Tyson, B.
17 VanBuren, H. L.
36 VanKleek, J. R.
18 Ward, D. D.
76 Washburn, R. S.
83 White, A. H.
20 White, H. L.
72 White, S. H.
21 Whitney, N. J.
94 Wilson, W. R.
53 Wooster, C. G.

CAMPUS NOTES

The last assembly of the year was held on May 16th. After selections by the Glee Club and Albert Horner, Jr., Dean Bailey spoke in part as follows: "When you who are Seniors leave college, you must not stop growing. The world is full of dead people who are still living. Have an enthusiasm for life, not a fidgety enthusiasm but a quiet enthusiasm which accomplishes results. Do not be too impatient for worldly goods. The great end of education is to produce scholars and to improve the human species.

"Materially our college has prospered during the past year. The registration has been 1,556 and we will probably register 250 in the summer school. There are now 34 or 35 full professorships. The college has now nine buildings in the course of construction. I do not mean that we ought to be satisfied with material development.

"Everything people do can be put in an educational form and this form should always be subject to change. I am wondering whether agricultural education when it is solidified will not be challenged. Learning counts for little unless it is adapted to life. Religion and education have always been conservative. The man who advocates the new is called a heretic lacking in faith and culture. Culture covers many sins. Can we not develop culture in agricultural education if the subjects are taught as they should be?

"Success in agricultural education depends on motive and motion. It depends on the spirit which comes out of the organization, the subject matter, the executive control and the laboratory effectiveness. But unless agricultural education is threaded with the spirit of service it cannot be the means of great benefit to the human race."

* * *

The following appointments have been made in the College of Agriculture:

L. J. Cross, Assistant Professor in the Department of Agricultural Chemistry; W. A. Riley, Professor of Insect Morphology and Parasitology; G. W. Herrick, Professor of Economic Entomology; Robert Matheson, Assistant Professor of Biology; G. C. Embody, Assistant Professor of Aquiculture; M. J. Prucha, Instructor in Plant Physiology; G. R. Hill, Jr., Instructor in Plant Physiology; Chas. Gregory, Instructor in Plant Pathology; C. P. Smith, Instructor in Plant Pathology; I. T. Francis, Assistant in Plant Pathology; Charles Chupp, Assistant in Plant Pathology; R. Y. Winters, Instructor in Plant Breeding; J. A. Bizzell, Professor in Soil Technology; H. O. Buckman, Instructor in Soil Technology; L. H. Moulton, Superintendent of Farms; K. C. Livermore, Assistant Professor of Farm Management; A. L. Thompson, Instructor and Investigator in Farm Management; C. E. Ladd, Instructor in Farm Management; T. E. Schreiner, Assistant in Poultry; H. E. Ross, Professor in Dairy Industry; H. C. Troy, Professor in Dairy Industry. H. M. Pickerill, Instructor in Dairy

Industry; T. J. McInerney, Instructor in Dairy Industry; Clara Browning, Instructor in Home Economics; Mrs. Bessie E. Austin, Clerk and Assistant; H. W. Riley, Professor of Farm Mechanics; E. D. Montillon, Assistant in Rural Art; E. M. Tuttle, Instructor in Rural Education; R. H. Wheeler, Assistant Professor in Extension Teaching; Royal Gilkey, Instructor and Supervisor in Extension Teaching.

Student Assistants in Entomology, Biology, and Nature-Study:

J. C. Faure, Dorothy Curtis, A. R. Cahn, O. F. Curtis, A. Crawford, A. F. Coutant, Mary Lyon, Blanche E. Stafford.

* * *

The Summer School of 1912, will begin July 8 and close August 16. Its purpose is to train persons who desire to teach agriculture, including nature-study and home economics, in the public schools. Last summer instruction was given in three distinct groups of subjects, in any one of which the student could spend all of his time: (1) Agriculture, including instruction in soils, agricultural chemistry, farm crops, animal husbandry, dairy industry, poultry husbandry, pomology, farm management, entomology, plant pathology, and meteorology. (2) Nature-Study and Elementary Agriculture, embracing a study of the history, development, and pedagogics of the nature-study idea; school gardens; field trips; collection, preparation, and preservation of materials; rural education; nature literature; and specific lessons in elementary agriculture and nature-study as outlined in the syllabus issued by the NewYork State Education Department for 1911–12. (3) Home Economics, covering the general subject of foods, human nutrition, principles of household economy, and household sanitation.

This summer the courses will be extended in scope and a number of classes will be offered, which carry university credit. They will be equivalent to introductory courses given by the regular departments during the year. Professor V. MacCaughey, of the Botany Department of the University of Hawaii, located at Honolulu, will be here to assist in the Rural Education course.

* * *

Professor Stocking addressed the Bedford Farmers' Club, Bedford Station, May 22, on "The Production of Milk from the Standpoint of the Producer and Consumer."

* * *

Dean Bailey is rewriting and revising his "Cyclopedia of American Horticulture." The new Cyclopedia will be out in 1914.

* * *

Professor C. O. DuBois, in charge of Field Crops and Farm Management at the State School of Agriculture, at Alfred University, is taking special work in the university for the rest of the term.

* * *

There will be a number of changes in the required schedules of freshmen work for next year. Four high school units in Agriculture will be accepted for entrance. Solid Geometry and Plane Trigonometry will be required at entrance of students entering for Forestry and Rural Art. Botany will be a sophomore subject to be taught in the College of Agriculture. Zoology will be an alternate choice with Botany. Only one term of Geology I, three hours, will be required. Physics 5 and 10 will be electives for students entering next fall. A new course, entitled "The Farm" is to be required of freshmen. It will be given the first term and count two hours.

* * *

The Frigga Fylge have enjoyed a number of social activities during the past two months. On April 16th, a reception was given to the freshmen girls of the College of Agriculture by this Club. Mrs. H. B. Young spoke of the duties of the girls to their college, and ways in which they might be useful in and through their organization. This was followed by a social programme, efficiently carried out by Miss Jean Rundio, after which refreshments were served up by the

committee. The "feed" included a box of apples reserved from the Athletic Rally.

* * *

On May 7, an entertainment was given in Sibley Dome by Miss Jeannette T. Broomell, reader and impersonator, assisted by Miss Gertrude Nye, of Ithaca Conservatory of Music, for the benefit of the Frigga Fylge Scholarship Fund. This scholarship of $50 was started in 1911 and is given on the same basis as other scholarships in the College of Agriculture. One of the active members of the Frigga Fylge earned the scholarship this year. The fund was first started by an e ntertainment given by Seumas McManus last year. The profits of last years' entertainment amounted to $90, and was increased to $125 by donations.

* * *

Professor C. G. Woodberry, head of the Department of Horticulture at Purdue University, spoke last month before the students in Pomology, comparing the possibilities for fruit growing in the east and west.

* * *

The Pomology Department has just concluded planting about 20 acres of land to peaches, plums, cherries and grapes.

* * *

H. B. Knapp, '12, has recently been appointed Instructor in Pomology for the coming year.

A new division is to be created in the Department of Pomology, with the appointment of a professor of Research Pomology, who will have charge of investigations and research, along the lines of interest to this department. Part of this work will be the collection of fruits and varieties for a practical experimental plot.

* * *

The Department of Pomology is carrying on an extensive investigation on a peach farm near Brockport. Effort will be made to determine the effect irrigation has on yield, flavor and keeping quality.

1911–1912 COUNTRYMAN BOARD.

H. A. Thompson, H. Errol Coffin, Dudley Alleman, Hadley C. Stephenson, Bruce P. Jones, Albert H. White, Jesse S. Brown, George M. Butler, Orrin M. Smith, Edwin P. Smith

As usual in the Intercollege Baseball League, Ag has been doing good work. The following games have been played: Ag. 4–Vet. 0, Ag. 6–Law 3, Architecture forfeited to Ag., Ag. 5–Arts 0, Ag. 3–C. E. 2, Ag. 6–M. E. 5. This unbroken series of victories gives Ag. the championship.

* * *

Mr. A. F. Coutant is to be assistant in Zoology in the summer school of the University of Illinois.

* * *

The regular monthly meeting of the Ag. sophomore class was held April 22. The class voted $20 toward cancelling the debt for the Ag. gig. Professor Rice of the Poultry Department gave a very interesting and instructive talk on the past history of the Agricultural College, illustrating its development

with lantern slides. A violin solo and a social hour consisting of music and an ice cream "feed" concluded the evening's program.

* * *

Prof. Riley, as president, is perfecting plans for the annual Standardization Congress of the American Society of Agricultural Engineers, to be held next December. This society is composed of about sixty members, two-thirds of whom are professors in agricultural colleges and one-third manufacturers. An attempt will be made to get manufacturers together to start a work of standardizing agricultural machinery. Such topics will be discussed as the standardizing of types of farm wagons, sizes of wheels, etc., so as to eliminate the number of wagon specifications which the manufacturers must carry. At this Congress, the constitution will be revised and a campaign for increased membership will be begun.

* * *

An exhibition of paintings and bronzes was held under the auspices of the Rural Art Department. Works of Antonio Barone, of New York, Miss Alice Platt, of New York, and Miss Beals and Miss Sackett of Buffalo were among those on exhibition. There were also several old English and Spanish paintings.

* * *

The following men have been elected to Hebs-Sa, an honorary society of the College of Agriculture:

Lewis Clark Armstrong, Edward Strong Bates, Earl Ayers Brown, Jesse Seeley Brown, Elewyn Dole, Charles Henry Elliott, Albert Benjamin Genung, Herbert Griswold Honeywell, Bruce Palmer Jones, Olney Brown Kent, Maurice Rothstein, Orrin Munn Smith, Frederick Clifford Shaw, Norman Damon Steve, John Euloe Whinery, Cass Ward Whitney, Wilfred deSignia Wilson.

* * *

A very interesting collection of knives from all parts of the world has been placed in the hall of the main building by Dean Bailey.

Dr. Dugger has been elected Research Professor of Plant Physiology of the Shaw Botanical Gardens, St. Louis, Mo. He will take with him Instructor Hill and Mr. Bobbins, a graduate student in that Department.

* * *

Prof. J. H. Comstock has been appointed by the trustees to represent the University at the celebration of the two hundred and fiftieth anniversary of the founding of the Royal Society of England, this summer. He is also a delegate of the Entomological Society of America to the meetings of the International Congress of Entomology, to be held at Oxford.

* * *

The Department of Soils has entered into arrangements for two industrial experiments. One with the Du Pont Powder Company for the study of dynamite and its relations to agriculture, another with the Wyoming Valley Truck Farm Company for the development of a 200 acre muck farm for truck gardening purposes.

* * *

T. M. Morrison, '11, assistant in the Soils Department is preparing a soil map of the University Farms.

Soil survey work during the present season will be carried on in two counties; in Orange County under G. A. Crabb assisted by T. M. Morrison, and in Oneida County under M. E. Carr assisted by E. T. Maxon, '12. Mr. Morrison, who passed the civil service examinations for soil survey work, has received an appointment from the bureau of soils, which has been deferred until Nov. 1, in order that he may give the summer to work in New York state.

* * *

The last year's legislature made a special appropriation of $1000 for the investigation of gladiolus diseases. The past legislature has just made an additional appropriation of $2000 for the investigations during the coming year. This work is to be conducted by the Department of Plant Pathology. L. M. Massey, a graduate student of Wabash College, Indiana, has been

appointed as special assistant to conduct this investigation and began work on April 1. The work during the growing season will be conducted in a field laboratory at Berlin, New York, on the farm of A. E. Cowee, the largest gladiolus grower in the United States. At this place extensive experiments will be carried on.

* * *

Mr. J. T. Francis, '12, has been appointed assistant in Forest Pathology and next year the Department will offer special courses in Dendropathology. This course will be in charge of Mr. W. H. Rankine who has been recently appointed Forest Pathologist for the State Conservation commission with headquarters at the College of Agriculture.

* * *

The Ag. Mandolin and Glee Clubs have just completed an unusually successful year. Under the directorship of F. A. C. Smith, the Mandolin Club has progressed very rapidly, performing exceptionally well on many occasions. The Glee Club, with G. W. Peck directing the first term, and C. W. Whitney the second, also are to be congratulated for the excellent work they have accomplished.

In March, their annual smoker was held in the students' lounging room. Besides clever "stunts" by several of the members, the programme included very interesting talks by Prof. Bentley and by Mr. E. S. Guthrie. At the election held during the meeting, C. W. Barker was chosen president, E. J. Hoffman, vice-president, L. C. Treman, manager, and R. C. Shoemaker, assistant manager.

* * *

Helios, an honorary society of the College of Agriculture organized last fall, has announced the following elections from the junior class: C. W. Bame, of Auburn; L. K. Chapman, of Auburn; A. C. Fraser, of Buffalo; M. B. Goff, Sturgeon Bay, Wis.; G. W. Lamb, of Hubbardsville; E. G. Lawson, of Buffalo.

* * *

Professor A. H. Gilbert will be at the head of the Chautauqua School of Practical Agriculture, which will be held from June 21st to August 30th. He will be assisted by Mr. R. E. Deuel of the Animal Husbandry Department and H. B. Rogers, '12. The school is designed for men who desire practical farming experience. The farm has 115 acres which are devoted to live stock, orchards, field crops and flowers. The men will live in tents. An arrangement has been made with the Farm Practice Department so that they can secure credit toward the farm practice requirements.

* * *

At the last meeting of the year of the Agricultural Association, the officers for the first term of 1912–13 were elected: President, C. W. Whitney; vice-president, E. A. Brown; secretary, Miss G. C. Bristol; treasurer, B. P. Jones; member at large of Executive Committee, H. G. Honeywell; athletic director and member of Athletic Council, N. D. Steve.

* * *

The following officers of the Agricultural Sophomore class were elected for the first term of 1912–1913: President, J. Judson Swift; vice-president, Miss L. C. Fish; secretary, F. H. Branch; treasurer, H. C. Stephenson; member at large of executive committee, R. H. Cross.

FORMER STUDENTS

MILTON PRATT JONES.

Milton Pratt Jones, son of Milton Trafton and Mary Smith Jones of Deerfield, N. Y., died at Saranac Lake, May 2, 1912, thirty-six hours after his mother, who had been attending him, had passed away. The double funeral was held at Forest Hill Cemetery, Utica, on May 4th.

Mr. Jones was born on the old family farm at Deerfield July 25, 1886. Graduating from Utica Free Academy in 1904 as an honor pupil, he entered the College of Agriculture with the class of 1908. From his freshman year he took an active part in student affairs, serving on many committees and leading in many student movements. As a recognition of his leadership he was elected to the senior honorary societies of the University and of the College of Agriculture. In his senior year he was president of the Agricultural Association, vice-president of the University Christian Association, and business manager of the CORNELL COUNTRYMAN. He was a member of Alpha Zeta fraternity.

During his last year as an undergraduate Mr. Jones served as an assistant in the extension department, and on graduation was appointed to an instructorship. In this capacity he became well known to country boys and girls throughout the state, through his letters in the Rural School Leaflet. It was on July 17, 1909, when representing the college in the summer school at Chautauqua that he was stricken. In May, 1910, he went to Saranac Lake accompanied by his mother, who there spent her life for her son in his unsuccessful struggle to regain health.

To an unusual degree Mr. Jones' frank honesty, enthusiasm, and untiring devotion to the things in which he was engaged, endeared him to his associates. The COUNTRYMAN pays tribute to his name for his personal worth and for his faithful and invaluable service.

'94, B. S. A.—R. A. Pearson has been elected to the presidency of the Iowa State College of Agriculture at Ames, Iowa. He has been granted leave of absence for the summer and will visit several agricultural colleges in Europe.

'98, Sp.—Theron S. Dean is General agent for Vermont of the Mutual Benefit Life Insurance Company of Newark, New Jersey. His present address is 401 South Union St., Burlington, Vermont.

'01, W. A.—Harry B. Winters has been appointed first assistant of agriculture in the New York State Department of Agriculture, to succeed C. S. Flanders who is now counsel for the Department of Agriculture. Mr. Winters is a native of Tioga County and, was educated at Phillips and at Andover. For thirteen years he was manager of the Winters Farm at Smithboro and later became general manager of the largest certified milk farm in the world. He came to the Department of Agriculture in February, 1911, as inspector of farms connected with state institutions. He is president of the New York State Breeders Association, treasurer of the N. Y. Agricultural Society, and director

of the Certified Milk Producers Association of America. Mr. Winters was at the College on May 11, as one of the regular visitors invited here by the Extension Department.

'02, Sp.—C. C. Cole is now an assistant agent connected with the New York State Agricultural Department. Mr. Cole was formerly manager of the J. B. Taylor Greystone Farms at Watertown, N. Y., but has managed his own farm for several years previous to the accepting of his present position.

'04, Ph.D.—Dr. F. W. Foxworthy has been transferred from the Philippine Bureau of Science to the Bureau of Forestry, and is stationed at the University of the Philippines at Los Banos. Half of his time is given to instruction in Forestry and one-half to research.

'04, B. S. A.—Norwood R. Shields recently Director of Agriculture at St. Paul's Normal School, Lawrenceville, Va., has bought a farm and settled down at Hagaman, N. Y.

'04, B. S. A.—P. J. Van Toben Sels is manager of a 4500 acre ranch in Sacramento County, Cal., consisting of reclaimed bottom land. Mr. Sels is also trustee and secretary of the entire reclaimed district. He writes of very interesting work in connection with this tract which is at times twenty-five to thirty feet below the water level, resulting in some excellent agricultural lands.

'05, M. S. A.—R. S. Woglum—Announcement has been made of Mr. Woglum's marriage to Miss Mabel Clayton, April 10, at Washington, D. C.

'05, B. S. A.—E. G. McCloskey is visiting with his wife in Ithaca for a few days. Mr. McCloskey is shortly to go to Philopolis, Maryland, where he will take a position as instructor in Agriculture in the Philopolis High School.

'05, Sp.—F. H. Cardozo is Director of Agriculture and Horticulture at the Florida Agricultural and Mechanical College for Negroes at Tallahassee, Florida.

'06, Sp.—H. O. Tiffany has been appointed Manager of the State Institute Farms at Dayton, Ohio.

'07, B. S. A., '08, M. S.—Norman Grubb. A mistake occurred in the April issue in which it was stated that Mr. Grubb was still connected with the Forest Service, Department of the Interior. In correction we would say that Mr. Grubb has been engaged as horticulturist in work under Dr. W. W. Tracy, Sr. in the Bureau of Plant Breeding Industry for some time.

'07, B. S. A.—F. S. Hayden is looking after the orchard end of his home farm. He is making a specialty of box packed fruit. Mr. Hayden spent several years in the study of the fruit business in the western states.

'07, Sp.—Solomon Rosenbaum is manager of the Threear Farm, Amenia, Dutchess County, N. Y.

'08, B. S. A.—Eroy H. Anderson is secretary of the Bedford Farmer's Coöperative Association of Bedford Hills, N. Y. His address is Katonah, N. Y.

'08, B. S. A.—L. A. Toan is teaching Agriculture in the Perry High School and is supervising the work of his farms in his spare time.

'08, Sp.—L. F. Strickland is with the New York State Department of Agriculture, Bureau of Horticulture. Mr. Strickland is in charge of the nursery and orchard work in Niagara, Erie, Wyoming, and Genesee counties. Coöperation experiments in conjunction with the New York Agricultural Experiment Station were conducted during the season of 1911 against the Pear Psylla. Aside from the regular work these are expected to be continued during the season of 1912 and will be extended against several other fruit pests also. Mr. Strickland is secretary of the Lockport Grange No. 1262. His address is Lockport, N. Y.

'09, A. B.—J. S. Lloyd, assistant in Biology is now in South America with a collecting party from the American Museum of Natural History of N. Y. When last heard from he and Arthur Allen of the Zoology Department, were planning to follow the Amazon River

from source to mouth; a part of the journey will be through unexplored territory.

'09, B. S. A.—Chester C. Neal, who has been successfully conducting a laboratory at 3038 Chestnut Street, Philadelphia, was recently appointed chemist and bacteriologist to the Independent Milk Dealers' Association of that city.

'09, W. D.—John P. Porteous is in charge of the laboratory testing and commercial dairy work at the State School of Agriculture, Canton, N. Y.

'10, B. S. A.—Mr. H. C. Wheaton has been appointed manager of the farms of the Commonwealth Water and Light Company of Passaic, N. J. There are about 100 acres in the farms and of these one-half is a tidal swamp. Mr. Wheaton's foremost problem will be the drainage and development of the wet land along the Passaic River. An extensive system of levees, canals and under-drainage will be undertaken. Mr. Wheaton was formerly Assistant Agriculturist of the Lehigh Valley Railroad.

'10, W. D.—Robert T. Quick is in charge of a certified milk plant of the Lake Placid Club, Lake Placid, N. Y.

'10, W. D.—James B. Rowe is managing a butter and cheese factory in Vernon, N. Y. Mr. Rowe won both gold and silver medals at the State Fair last fall.

'11, B. S. A.—Isaac Birkhahn Lipman, was married on Saturday, April 6th to Miss Helen Phillips of New York City.

'11, W. D.—Melvin Streeter is with the Chemung Dairy Company, Elmira, N. Y.

'11, Sp.—J. G. Cochrane of Ripley, N. Y., spent a few days in Ithaca recently. Since leaving the University he has assisted in the work at the home farm. On May 15 he took a position as manager of a 50 acre apple and pear orchard at Kisco, N. Y.

'11, Sp.—Samuel Huffron is stationed at New London, Ohio, as Government agent in the timothy breeding nursery. Some 16,000–20,000 plants are being transplanted. Many of these have been already set out.

Ex '11.—Lee J. Talbott, Jr., the former wrestling and hammer throwing champion, writes that he has charge of the Silo Department of the Columbian Steel Tank Co., Kansas City, Mo. His address is 1605 West 12th St., Kansas City. He is as enthusiastic about steel tanks as he used to be about iron hammers.

'12, B. S. A.—The present address of Edward L. Bernays is 120 Produce Exchange, New York City.

'12, B. S. A.—J. S. Briwa has been appointed assistant bacteriologist at the Geneva Experiment Station.

'12, B. S. A.—Wm. D. Haselton is managing a young orchard farm at Stevensville, Montana.

'12, B. S. A.—Lewis Kraker is managing a farm at Hempstead, L. I. Market gardening, squab raising and fruit growing are receiving special attention.

'12, Sp.—Frank F. Black is leaving now to take charge of the Belvidere Farms, Belvidere, N. Y.

'12, Sp.—F. E. Rogers has accepted a position with the Oswego Fruit Growers Association as Horticultural Advisor to the Fruit Growers of the county.

'12, W. A.—James Rothenberger died May 1st. Mr. Rothenberger was severely kicked by a horse on April 24th. A leg was broken and blood poisoning set in which resulted in his death.

'13, Sp.—J. M. Steitz of Ghent, N Y. has returned from a 10 months' trip in the west where he has been working in different localities.

'13 Ex.—Rowland Calkins is now staying at Saranac Lake for his health.

'14, Sp.—Paul Smith is now managing a 400 acre dairy farm near New York City.

'14, Ex.—Daniel E. Smith, who went to Saranac Lake for his health early last fall has now recovered and has taken a position with the Newark Sign Works, of Newark, New Jersey.

GENERAL AGRICULTURAL NEWS

COMMUNITY BREEDING

The benefits to a large number of men in one locality, where they can work and plan in unison, of adopting the plan whereby a community breeds one breed of stock, and as nearly as possible one family of that breed, and so secures not only uniformity of stock, but also prepotency, is well shown by the success of the Geauga County, Ohio, Holstein Breeders' Association. This association numbers about 150 members, every one of which is breeding—very nearly—the De Kol family, and along, as nearly as possible, close lines of similarity. Bi-monthly these men meet for conference and discussion, formulate sales, and possibly approach something like a "gentleman's agreement," as to numbers to be sold, prices, and the like. This association has made a great reputation for meritorious animals, and buyers come from all parts of the country and literally "clean up" the market, buying every animal that can be purchased.

A milking temperment is always having its upward pull, and it is not strange that when men by this plan come to have dairies where none fall below 10,000 pounds of milk in 12 months, such men can sell ten days old heifer calves at $100 and better each. What these men are doing others can do. This plan is not likely to be overdone, as long as there are 20 million cows outside of purebred dairy breeding, and the population that is asking for finer dairy produce is fast outstripping the cow population that is to supply this demand. The prices of butter and cheese have been continually advancing during the last ten years and probably they will be still higher. Then the men who are owning these fine producing cows will have a great advantage. The man with the common cow may then take time to sum up some of the advantages of community breeding, and lament that once upon a time he, too, might have taken his place in the advance ranks and now owned $500 cows.

COÖPERATION OF PRODUCERS AND CONSUMERS

On April 19–20, there met in the Board of Trade and Transportation rooms, in New York City, the representatives of more than twenty associations of producers and consumers. The object of this conference was to formulate plans for bringing the producer and consumer into closer relation and thereby eliminate, if possible, some of the middlemen, through whose hands all products must now go to the consumer. After considerable discussion, in which several points of view of the problem were presented, a committee of five producers and five consumers was appointed to prepare a definite plan for coöperation and to make recommendations. Several recommendations and resolutions were left in the hands of a permanent committee.

* * *

CONDEMNATION CLAIMS ACT

Several hundred farmers and others scattered all through the state were pleased to learn that Governor Dix has approved of the bill appropriating $200,000 for the payment of claims incurred by the state by reason of the condemnation and slaughter of glandered horses and tuberculous cows. Commissioner Huson reported to the Legislature on March 7 that there were then claims on file in his department aggregating $194,000, with no funds to satisfy them. Many of these claims were more than six months old. Commissioner Huson, in anticipation of the signing of the bill, had a number of clerks at work preparing schedules for the payment of these claims, and all properly authenticated claims were satisfied within thirty days.

* * *

PRACTICAL EXTENSION WORK

The excellent results which the business farm management instruction under the direction of the Missouri College of Agriculture has accomplished in Missouri, have been responsi-

ble for the great number of requests for the services of men of that college. Consequently this plan has been adopted as a possible way to reach as large a number of farmers as possible with the instruction that has proved so profitable. The college will place a limited number of trained agricultural men in the counties or localities during the present year. The men who will carry on this work will be known as county administration men, and will be entirely under the direction of the college. They will devote their entire time to giving instruction and advice to the farmers in the communities in which they are employed. The college will pay 25 per cent of each man's salary, the county or community receiving his services 75 per cent. The location of the few men who will be started this coming year will be determined by the interest shown and support promised by the citizens of the community concerned. Each section of the state will be given an opportunity to ask for the services of one of these men. It is hoped that ultimately every community will employ a county administration man.

* * *

AMERICAN DAIRY PRODUCTS

Statistics gathered at Washington show that the price of butter in this country averages about 50 per cent more to-day than it did ten years ago. The price of milk increased in the same period from 11 cents to 13 cents per gallon. The output of butter only increased 18 per cent, however, from 1904 to 1909 while there was an actual decrease in the output of cheese. It is estimated that the total butter output of the country in 1909 was about 2,000,000,000 pounds. The output of the creameries was 625,000,000 pounds. The remainder came from the churns on the farms. A great transformation has taken place in the butter in thirty years. At that time less than four per cent of the supply was creamery product. By 1900 the percentage had risen to nearly 30. The value of the products of such concerns has increased from $25,750,000 to $274,500,000. The student of the increase in the cost of living finds butter one of the important factors.

* * *

NEW YORK AGRICULTURAL PROSPECTS

The state of New York is in the real estate business to some extent. It will soon have farms for sale. Through the Agricultural Department it has listed and helped to sell over 2,000 unoccupied farms already. A large proportion has gone to western farmers. Since January 1st there have been 2,023 calls for the bulletin describing these farms and of these the Central West sent 574. Canada sent 34 and 10 foreign countries were interested. A western farmer whose land has increased in value to the extent of $150 per acre may sell out, buy twice as much land in New York, buy stock and tools and have a comfortable sum left as a reserve. In New York he can raise, on good land, as much grain or grass as he raised before and get one-third more per unit for it. The thousands who are to locate in New York will need new outfits of tools and supplies and will have the capital to buy them. The country lying from the Ohio river east to the Atlantic is to see in the next 20 years the greatest agricultural development of any section in the country.

BOOK REVIEW

PLANT ANIMALS. A Study in Symbiosis by F. Keeble, Professor of Botany in University College, Reading, England. Published by the Cambridge University Press, represented by G. P. Putnam's Sons, 2, 4 and 6 West 45th Street, New York City. 157 pages. $.40 net.

A very scholarly and interesting little book, which enters an important field. Professor Keeble believes that biological principles can be best studied in simpler organisms and his book proves that there is much truth in this theory.

NOTICE

TO SUBSCRIBERS

A good many subscriptions will expire with this issue, being the last one of Volume 9. Is your subscription one of these? If so, you better renew right now and make sure of receiving the October number next fall. The price is only One Dollar.

PRESS OF W. F. HUMPHREY, GENEVA, N. Y.